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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/539,907	06/17/2005	Paolo Agostinelli	207048	6581
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Abelman, Frayne & Schwab 666 Third Avenue 10Th Floor New York, NY 10017-5621				
			EXAMINER	
			NGUYEN, CHAU N	
			ART UNIT	PAPER NUMBER
			2831	
			MAIL DATE	DELIVERY MODE
			08/06/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/539,907

Applicant(s)

AGOSTINELLI, PAOLO

Examiner

Chau N. Nguyen

Art Unit

2831

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5 and 7-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5 and 7-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 1 recites the broad recitation "alloy containing tin, antimony, and copper, and the claim also recites "alloy consisting of tin, antimony, and copper" which is the narrower statement of the range/limitation.

Claims 2, 3, 5, and 7-10 are included in this rejection because of dependency.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3, 5, 7-19, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saen et al. (5,527,997) in view of Shockley (2,744,063) and Thomson (2,950,149).

Saen et al. discloses an electric wire consisting of a conducting metal (11) able to continually conduct a current, the outer surface of which is covered in a layer (12) of tin alloy. Saen et al. also discloses the conducting metal being copper (re claims 5 and 13) and the wire being used in signal cable (re claims 7, 8, 14 and 15). Saen et al. does not disclose the alloy consisting of tin, antimony, and copper nor the alloy layer being formed by dipping the conducting metal through a bath of molten alloy consisting of tin, antimony, and copper (re claims 1 and 11).

Shockley discloses an alloy consisting of tin 95%wt, antimony 4%wt, and copper

1%wt (re claims 2-3 and 12). It would have been obvious to one skilled in the art to use the tin alloy as taught by Shockley for the alloy layer of Saen et al. since the tin alloy taught by Shockley has a good adherent to metal base such as copper (col. 5, lines 35-40). Thomson discloses a metal wire (32) covered by an alloy layer (34). Thomson teaches that dipping the metal wire into a molten bath is an alternative method of forming an alloy layer covering the metal wire. It would have been obvious to one skilled in the art to form the alloy layer (12) of Saen et al. by dipping the metal wire (11) into a bath of molten alloy (taught by Shockley) so that a layer of desired thickness is allowed to remain on the surface of the metal wire as taught by Thomson (col. 3, lines 6-13).

Re claims 9 and 16, it would have been obvious to one skilled in the art to use the modified wire of Saen et al. in a winding or in a transformer since it has been held that a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. Re claims 10 and 17, it would have been obvious to one skilled in the art to provide the modified wire of Saen et al. with a dielectric sheath made of woven black silk to provide the wire with an insulation layer since woven black silk is known in the

art for being used as insulating material. Claims 18, 19, and 22 are method counterparts of claims 1-3 and 7.

5. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Saen et al. in view of Shockley and Thomson as applied to claim 18 above, and further in view of Carey, II et al. (5,667,849).

Claim 20 additionally recites the bath having a temperature between about 300°C and about 450°C. Carey, II et al. teaches a method of coating a metal with an alloy, wherein the metal wire is dipped in a bath of molten tin alloy. Carey, II et al. teaches that the molten bath should have a temperature between about 300°C and about 450°C (col. 8, lines 22-30) to provide the coating layer with desired thickness. It would have been obvious to one skilled in the art that when dipping the metal wire of Saen et al. in the molten bath (taught by Shockley), the temperature of the bath should be between about 300°C and about 450°C as taught by Carey, II et al. to provide the coating layer with a desired thickness.

6. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Saen et al. in view of Shockley and Thomson as applied to claim 18 above, and further in view of Teshima et al. (3,027,269).

Claim 21 additionally recites, prior to dipping, the metal wire being passed through a flux and pre-heated to a temperature between about 60°C and about 90°C. Teshima et al. discloses a process for coating a metal. Teshima et al. discloses the process comprising the steps of passing the metal through a flux, pre-heating and then dipping in a bath (col. 2). It would have been obvious to one skilled in the art to apply the teaching of Teshima et al. when coating the alloy layer over the metal wire of Saen et al. to prevent any voids forming between the outer surface of the wire and the alloy layer.

Response to Arguments

7. Applicant's arguments with respect to claims 1, 11, and 18 have been considered but are moot in view of the new ground(s) of rejection.

Summary

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chau N. Nguyen whose telephone number is 571-272-1980. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on 571-272-2800 ext 31. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Chau N Nguyen
Primary Examiner
Art Unit 2831